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Health Care Use and HIV-Related Behaviors of Black and Latina Transgender Women in 3 US Metropolitan Areas: Results From the Transgender HIV Behavioral Survey

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Abstract

Purpose—HIV prevalence estimates among transgender women in the United States are high, particularly among racial/ethnic minorities. Despite increased HIV risk and evidence of racial disparities in HIV prevalence among transgender women, few data are available to inform HIV prevention efforts.

Methods—A transgender HIV-related behavioral survey conducted in 2009 in 3 US metropolitan areas (Chicago, Houston, and Los Angeles County), used respondent-driven sampling to recruit 227 black (n = 139) and Latina (n = 88) transgender women. We present descriptive statistics on sociodemographic, health care, and HIV-risk behaviors.

Results—Of 227 transgender women enrolled, most were economically and socially disadvantaged: 73% had an annual income of less than $15,000; 62% lacked health insurance; 61% were unemployed; and 46% reported being homeless in the past 12 months. Most (80%) had

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visited a health care provider and over half (58%) had tested for HIV in the past 12 months. Twenty-nine percent of those who reported having an HIV test in the past 24 months self-reported being HIV positive. Most of the sample reported hormone use (67%) in the past 12 months and most hormone use was under clinical supervision (70%). Forty-nine percent reported condomless anal sex in the past 12 months and 16% reported ever injecting drugs.

Conclusion—These findings reveal the socioeconomic challenges and behavioral risks often associated with high HIV risk reported by black and Latina transgender women. Despite low health insurance coverage, the results suggest opportunities to engage transgender women in HIV prevention and care given their high reported frequency of accessing health care providers.

Keywords

transgender; black; Latina; HIV; HIV risk; health care utilization

INTRODUCTION

In the United States, approximately 0.6% of the population, or 1.4 million individuals, identify as trans-gender.[1] Transgender women are at high risk for HIV infection. A meta-analysis of studies conducted among transgender women in 5 high-income countries (including the United States) estimated a pooled HIV prevalence of 22%.[2] In addition, an earlier systematic review from studies in the United States showed that the highest estimates of HIV prevalence were among black transgender women.[3]

Similar to other populations at risk for HIV, transgender women engage in risk behaviors such as condomless anal intercourse[4,5] and needle sharing when injecting illicit drugs.[5,6] However, for transgender women these behaviors occur within a context of stigma and discrimination exceeding that experienced by other populations at elevated risk, including men who have sex with men. The National Transgender Discrimination Survey conducted in 2008 found that 90% of transgender respondents had experienced harassment, mistreatment, or discrimination on the job, which impacted their quality of life and ability to sustain themselves financially and emotionally.[7] Challenged by discrimination in the formal workplace, some transgender women are forced to work in the underground economy by engaging in sex work or selling drugs.[7–9] In addition, black and Latina transgender women compose most transgender sex workers in the United States and are more likely than white transgender women to engage in unprotected sex and nonhormonal injection drug use, and, therefore, are more susceptible to HIV infection and sexually transmitted infections (STIs).[10] Additional challenges reported by transgender women include psychological and physical abuse and violence,[4] unemployment and unstable housing,[11,12] lack of social support,[13] low self-esteem and experienced transphobia,[14] and substance abuse.[12,15,16] Many transgender women also experience an unmet need for social interactions that affirm their gender identity.[17]

Transgender women may undertake a range of medical steps to actualize and maintain their true gender identity. Medical treatments may include ongoing hormone therapy and feminization procedures to mitigate masculine features, and for those who are compelled to and elect it, gender affirming surgical procedures.[18–20] However, regardless of the stage of

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transition, all transgender women need access to quality affordable health care, preferably from providers experienced in transgender health.[21] Unfortunately, few transgender women have access to low-cost care and safe, inclusive medical environments.[22,23] In fact, many trans-gender women face stigma, discrimination, and harassment within the health care system that act as barriers to obtaining quality care.[7] Evidence shows that the current medical workforce lacks appropriate training in transition-related needs of transgender persons, their broader health issues, and general transgender-community competency (eg, being sensitive about pronouns and names used, gender assessment on forms, etc.).[22] Not only do these barriers present challenges to providing general health care, they also undermine HIV prevention and treatment in the clinical setting as transgender persons may not want to discuss their HIV status or reveal risk behaviors.[22,24–28] Improving access to quality, affordable transgender-sensitive health care services could be beneficial in preventing HIV infection among transgender women. This is especially warranted given the HIV disparities among transgender women of color.

We used behavioral data from a pilot of the Trans-gender HIV Behavioral Survey (THBS), which was conducted to determine the feasibility of recruiting transgender women living in 3 metropolitan areas using respondent-driven sampling (RDS)[29–32] and to evaluate a transgender-specific questionnaire. The behavioral data were collected anonymously to describe: (1) sociodemographic characteristics, (2) hormone use and other health care utilization, and (3) behavioral variables related to acquiring and transmitting HIV infection among a sample of transgender women. The questionnaire was adapted from an instrument used in the National HIV Behavioral Surveillance system. Input on the questionnaire was provided by a panel of transgender subject-matter experts and transgender-specific items were cognitively tested among transgender persons before piloting the survey in the community. These data can be used to understand health care utilization and HIV prevention and treatment efforts with transgender women of color and serve as a means to measure progress in those efforts.

METHODS

In this study, we defined transgender as someone whose gender identity differs from the one they were assigned at birth. We recruited black and Latina transgender women into the survey using RDS in 3 metropolitan areas: Chicago, IL; Houston, TX; and Los Angeles County, CA. RDS has been effective at recruiting hard-to-reach populations[33] including transgender persons.[34,35] Each metropolitan area identified a sample of transgender women starting with a small number of initial recruits or seeds. The initial seeds were black or Latina transgender women identified by survey staff through outreach in the local transgender community or by referral from a local organization serving the transgender community. Each seed completed the interview and was asked to recruit up to 5 black or Latina transgender women from their peer networks. These subsequent recruits, if eligible, also completed the interview and were offered the opportunity to recruit up to 5 of their peers. Peer recruitment continued for either 3 months or until the sample size targets of 100 transgender women participants per metropolitan area was reached. Respondents received $20–$25 for the interview and an additional $10 for each referred peer who was eligible and participated in the survey. To be eligible to participate in the survey, individuals had to be:

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(1) black or Latina; (2) assigned male at birth based on self-report, and currently identify as female or transgender; (3) 15 years of age or older; (4) a current resident of the participating metropolitan area; and (5) able to complete a computer-assisted questionnaire in English. The study staff administered a computerized eligibility screener among those who were referred to the study. If the respondent was eligible, the study staff reviewed the consent form with the respondent and obtained oral consent for participation. The study received a waiver of parental permission for participants aged 15 to 17 and collected oral assent from the youth for participation. After consenting or assenting to the interview, the study staff conducted a short tutorial on how to complete an audio computer-assisted self-administered interview (ACASI) using headsets and a laptop computer. The ACASI questionnaire was conducted using a headset and assessed sociodemographic characteristics, health care utilization variables, HIV-associated risk behaviors, and HIV prevention experiences. Participants completed the computerized questionnaire in approximately 45 minutes at established locations, where the interview could be conducted in private. The protocol was approved by local institutional review boards in each of the 3 participating metropolitan areas and the Centers for Disease Control and Prevention's institutional review board.

Data Analysis

We present descriptive findings for key indicators including: (1) sociodemographic characteristics (eg, annual income, health insurance, employment, homelessness, and incarceration); (2) HIV and STI prevention activities (eg, HIV testing/treatment and STI screening) and health care use (eg, recent visit to a health care provider); (3) hormone and other transgender health care use (eg, hormone/silicone use, clinician-supervised hormone replacement therapy, and gender affirming surgical procedures); and (4) HIV sexual and drug risk behaviors (eg, sexual risk behaviors, exchange sex, and alcohol/substance use). We combined interview data from all 3 THBS sites and because of the small sample from each site did not adjust the analysis to account for RDS sampling.

Sociodemographic Characteristics and HIV/STI Prevention Activities

The data for participant characteristics were analyzed according to gender identity, race/ethnicity, age group, education level, employment status, health insurance status, annual household income, recent homelessness, recent arrest, HIV/STI status and testing measures, HIV treatment status, recent health care provider visits, recent receipt of free condoms, and metropolitan statistical area. Responses for gender identity were categorized as either female or trans-gender. Responses for race/ethnicity were categorized into mutually exclusive categories: non-Hispanic black and Latina. Transgender women of Latina ethnicity could report being of any race. Additional analyses were conducted to stratify the sample of black and Latina transgender women by race/ethnicity to test whether there were meaningful differences between the 2 groups. Education level was categorized as less than high school, high school diploma or equivalent (eg, general educational development diploma), and some college/technical degree or higher. Employment status was categorized as employed full-time, part-time, unemployed/disabled, or other. Health insurance was categorized as none, private only (eg, health insurance obtained through a private insurance policy or employer, TRICARE, CHAMPUS, or membership in a health maintenance organization), public only (eg, Medicare, Medicaid, or Veterans Administration coverage), or other coverage. Annual

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household income was collected from participants in ranges, which were collapsed into 4 categories based on the income distribution of respondents: <$10,000, $10,000–$14,999, $15,000–$19,999, and ≥$20,000. Income was not adjusted for household size because most of the participants had a household size of one. HIV status was asked in a series of questions as "Have you ever been tested for HIV?," "In the past 2 years, how many times have you been tested for HIV?," "That time you got tested for HIV in the past 2 years, did you get the result of the test?" and "What was the result of your most recent HIV test?" Hepatitis C infection was asked as "Has a doctor, nurse or other health care provider ever told you that you had hepatitis?" and "What type or types of hepatitis have you had?" Syphilis infection was assessed as "In the past 12 months, has a doctor, nurse, or other health care provider told you that you had syphilis?" and "Even though a health care provider didn't tell you that you had syphilis, did you have a test to check for syphilis in the past 12 months?" In addition, 3 time frames for self-reported behaviors or experiences were included in analyses: ever (ie, at any point in the participant's lifetime), during the 12 months before the interview, and the most recent time the participant engaged in the behavior.

Hormone and Other Transgender Health Care Use

Transgender health care was measured by hormone therapy use (never, in the past 12 months, or not within the past 12 months), injection of hormones (ever and in the past 12 months), insurance coverage and clinical supervision of hormone therapy, injection of silicone or other substance for feminization, and sexual reassignment surgery (ever and whether covered by insurance, if insured). Transgender women who reported injecting their hormones were asked for the source of the needles used for injection. Participants were also asked if they disclosed their transgender identity to their health care providers.

HIV Sexual and Drug Risk Behaviors

HIV risk was measured by sexual behavior and drug and alcohol use. Sexual behavior was measured by assessing the cumulative number of male sex partners, anal sex, condomless anal sex, exchange sex for money or drugs, and forced sex with male partners in the past 12 months. Details about anal sex with male partners are presented as key risk behaviors for HIV transmission. Male sex partners were categorized as main or casual partners. A main partner was someone with whom the participant felt most committed (eg, boyfriend, spouse, significant other, or life partner). A casual partner was someone with whom the participant did not feel committed, whom she did not know very well, or with whom she had sex in exchange for something such as money or drugs. Participants could report having more than one main or casual partner in the past 12 months. We also assessed whether transgender women had sex with cisgender female partners in the past 12 months.

For alcohol and substance use, participants were asked about their use during the past 12 months of multiple types of drugs (injection or noninjection) that had not been prescribed for them. Alcohol use was defined as drinking any alcohol such as beer, wine, malt liquor, or hard liquor. Binge drinking is reported and was defined as drinking more than 5 alcoholic beverages at one sitting in the 30 days before the interview. Participants were also asked whether they had sex with their last male partner while under the influence of drugs and/or alcohol.

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RESULTS

During February to April 2009, we used RDS to recruit a total of 241 transgender women, of which 37 were seeds. Of the 241 individuals screened for eligibility, 232 were assigned a male sex at birth; 231 identified as female, transgender, or a gender identity other than male, and 229 met the eligibility criteria. Two records with incomplete questionnaire data were excluded from the analysis. Our analysis includes data from 227 questionnaires completed across 3 participating sites: Chicago, IL (n = 67); Houston, TX (n = 59); and Los Angeles County, CA (n = 101).

Sociodemographic Characteristics

Of the 227 respondents, 61% were black and 39% were Latina. A majority of the Latina respondents were from Los Angeles County, CA. Most (64%) of the respondents were 30 years of age or older, one-third (34%) had not completed high school, and nearly two-thirds (61%) were unemployed at the time of the interview (Table 1). Most (73%) respondents had an annual income less than $15,000, 46% reported being homeless in the past 12 months, and 24% reported being arrested in the past 12 months. Most (62%) of the respondents did not have health insurance.

HIV and STI Prevention Activities

Despite a majority not having health insurance, most (80%) had visited a health care provider in the past 12 months. Because of survey administration errors, only participants reporting an HIV test in the 2 years before interview (n = 152) were asked about their HIV status. Of these women, 29% reported being HIV positive. Among all participants, 58%, 40%, and 47% had tested for HIV, hepatitis C virus, and syphilis in the past year, respectively. Twelve percent reported being hepatitis C virus–positive, and 7% reported a syphilis diagnosis in the past 12 months (Table 1).

Of those who had not been tested for HIV in the past 12 months, the most common reason for not having an HIV test was that the participant thought she was at low risk for HIV infection (20%), followed by fear of testing positive (11%). Structural barriers to HIV testing (eg, lack of transportation, money, or health insurance) were reported as the main reason for not testing by only a few participants (ie, ≤3 persons reporting each). Of those who reported being HIV positive, 75% were on antiretroviral therapy (data not shown).

Hormone Use and Other Transgender-Specific Health care

Hormone use was common among participants: 83% had ever taken hormones and 62% had ever injected hormones. In addition, 67% had taken hormones and half had injected hormones in the past 12 months. Among the 38% of participants with health insurance, 66% reported their insurance covered hormone therapy. Most of the transgender women using hormones reported using hormones under clinical supervision (70%) and 66% had obtained the needles for hormone injections from a doctor. Only 6% had injected silicone or any other substance for physical feminization in the past 12 months. A small number (4%) reported having undergone vaginal construction or sex reassignment surgery and only 5% of transgender women with health insurance reported their insurance covered sex reassignment

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surgery. Of the 181 participants who had seen a health care provider in the past 12 months, 88% reported that they disclosed their transgender identity to their health care provider (Table 2).

HIV Sexual and Drug Injection Risk

Table 3 shows HIV-risk behaviors that occurred in the 12 months before interview as reported by study participants. Forty-eight percent reported having 5 or more male sex partners, whereas only 7% reported having sex with a female in the past 12 months. Seventy-eight percent reported anal sex with male partners and 49% reported condomless anal sex with male partners. Exchange of sex for money or drugs was reported by 42% of the sample. Sixteen percent also reported being forced to have sex with another person in the past 12 months.

Illicit noninjection drug use in the past 12 months was common (38%). Of those reporting illicit drug use, marijuana was most common (81%) followed by ecstasy (30%), crack cocaine (29%), powdered cocaine (28%), and crystal meth-amphetamine (24%). Although 16% of the transgender women reported injecting illicit drugs in their lifetime, only a small proportion (4%) had done so in the past 12 months. In addition, most (65%) transgender women had consumed an alcoholic beverage in the past 30 days and 35% reported binge drinking in the past 30 days. Thirty-seven percent reported sex under the influence of drugs and/or alcohol with their most recent male sex partner.

DISCUSSION

Findings from this THBS pilot confirm and further reveal the myriad socioeconomic disadvantages faced by black and Latina transgender women. Although it is not known to what extent the sample under sampled transgender women is of high socioeconomic status, the transgender women in this sample faced economic challenges, such as annual incomes below the federal poverty level, unemployment, or homelessness. A large proportion of black and Latina transgender women in the sample reported high-risk sexual behaviors such as exchange sex, multiple sex partners, and condomless anal intercourse. In addition, 29% of the transgender women in the survey who provided their recent HIV test result were HIV positive.

Findings from this study are consistent with other studies reporting low income[35] and high prevalence of homelessness[5] among transgender women. These outcomes may stem from harassment and discrimination, which impacts educational attainment and future success in obtaining jobs and/or housing.[7] Some strides have been made in improving the laws and policies banning discrimination of transgender persons in the workplace and protecting transgender tenants or home buyers.[36] However, although policies are changing or are being enacted, to date it is likely that they neither cover all transgender women living in the United States, nor do they include every setting. Transgender women could still benefit from programs to increase opportunities for employment training, housing, and other basic needs.

Despite the many socioeconomic disadvantages and elevated health risks faced by this sample of black and Latina transgender women, including 62% who lacked health care

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coverage, many participants visited a health care provider or were tested for HIV in the year before the interview. Also, of those taking hormones, most had clinically supervised hormone therapy and most of the transgender women who had administered their own injections had received their syringes from their doctor or a pharmacy. These findings show relatively recent interactions with the health care system and opportunities to link these women to HIV prevention, treatment, and care services.

However, many transgender women still lack quality, affordable transgender-sensitive health care in general.[20] Most likely need clinical guidance to assist with their gender transition and maintenance, which may include the use of hormones and physical feminization procedures. Clinical supervision of hormone replacement therapy is important because unsupervised hormone therapy may put patients at risk of excessive or inadequate dosing, which could lead to side effects or risks of blood clots. Some evidence has linked hormone therapy with cardiovascular disease, whereas these studies did not control for risk factors such as tobacco use.[19] About 30% of the transgender women who used hormones in this survey reported that they did so unsupervised. In addition, physical feminization procedures, like black-market injections of silicone or other substances, are dangerous and life threatening, although these procedures were rare in the sample.[37]

Given the reported recent interactions with the health care system, integrating HIV prevention into the primary care of transgender women could be beneficial in improving antiretroviral adherence to treat (antiretroviral therapy) or prevent (pre-exposure prophylaxis) HIV infection as research has shown that transgender women may have difficulty integrating their antiretroviral medicines into their daily routine[38–40] and some may be reluctant to take antiretroviral medications because of a belief that there are negative interactions with their hormones.[28] However, these data showed that a large percentage (75%) of the self-reported HIV-positive transgender women were on antiretroviral therapy and almost all had disclosed their gender identity to a health care provider. Nevertheless, health care providers could serve an important role in monitoring the biological risks associated with hormone therapy, educating their patients about the importance of taking antiretroviral therapy (treatment or prevention), and discussing drug interactions (or lack thereof) between antiretroviral medications and hormones.[28,41–43] In addition, being under a physician's care has been reported to be associated with reducing HIV-risk behaviors and obtaining clean needles for hormone injections.[41] Future behavioral surveys should assess the factors affecting adherence to antiretroviral medicines.

Having access to health care does not necessarily mean it is affordable. Despite the health care needs and frequency of health care visits reported by transgender women, we reported that nearly 62% of the transgender women were without insurance, which is over 3 times as high as the general public in the United States in 2009 (ie, 17%).[35] Since 2009, opportunities to obtain insurance coverage were made available through the Patient Protection and Affordable Care Act (ACA) of 2010.[42] However, despite the introduction of the ACA (after these data were collected), more efforts are likely needed to increase access to health services in this population. Although the ACA prohibits insurance companies from denying coverage due to pre-existing conditions, it does not require companies to cover sex reassignment surgeries or other transition-related procedures.[36] In our study, only 5% of the

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transgender women sampled who reported having insurance also reported that their coverage included gender affirming surgeries.

This study has several limitations. The data may not represent all black and Latina transgender women living in the 3 participating sites and should not be generalized. These data are also acquired from a convenience sample and the data have not been weighted to account for biases because of the sampling strategy. It is likely transgender women of high socioeconomic status are underrepresented in this sample. Also because the interview was not translated into Spanish, only Latina transgender women who were fluent in English could take part in the survey. Studies from the broader Latino community suggest that monolingual, Spanish-speaking trans-gender women may be more socioeconomically challenged and likely to be uninsured compared with bilingual Latina transgender women[43,44] In addition, because 2 of the 3 sites did not meet the sample size goal of 100, almost half of the sample is composed of transgender women from Los Angeles County. Last, this study likely underestimates HIV prevalence. We did not conduct HIV testing as part of study enrollment and only relied on self-report of HIV status. In addition, the program for the ACASI had an error that inadvertently allowed 20% of the participants to skip the question asking the most recent HIV test result if they did not report an HIV test in the past 2 years, thus the true prevalence of HIV in this sample is unknown. The percentage self-reporting as HIV positive in the survey could underestimate the true positivity in the sample if longstanding HIV-positive transgender women were more likely than uninfected women to not have an HIV test in the 2 years before the interview. Therefore, it is not known how well the self-reported HIV status rates in this study compare with overall population prevalence for trans-gender women of color. It is also important to note that these data show that regular HIV testing was low and did not meet CDC recommendations for HIV testing for populations at higher risk in place at the time of the survey, for example, HIV testing every 3–6 months may be advised for sexually active men who have sex with men.[45]

CONCLUSION

The updated National HIV/AIDS Strategy for the United States released in July 2015, addresses the urgent need to reduce new HIV infections among transgender women while also noting the high burden of HIV among black transgender women.[46] Transgender women in the United States face many socioeconomic challenges, including lack of health insurance. Unlike other populations at risk for HIV, many transgender women will seek medical assistance with their gender transition, and therefore, need to routinely visit a health care provider who is knowledgeable of transgender health issues.[20] Supportive interactions with the health care system could provide useful opportunities for HIV prevention, by providing HIV testing, risk-reduction options, such as pre-exposure prophylaxis for eligible HIV-negative trans-gender women, and antiretroviral treatment for those who are HIV positive. Finally, these findings suggest that more information about the interactions transgender women have with the health care system is needed. Subsequent behavioral surveys among transgender women should monitor improvements to health care access, utilization and quality as well as for assessing the socioeconomic indicators in this population.

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TABLE 1

Characteristics of Participants, Transgender HIV Behavioral Survey, 3 US Cities, 2009

	Total	
Characteristics	**No.**	**%**
Gender		
Female	50	22.0
Transgender	177	78.0
Race/ethnicity		
Black	139	61.2
Latina	88	38.8
Age at interview, yrs		
15–17	2	0.9
18–24	47	20.7
25–29	33	14.5
30–39	66	29.1
40+	79	34.8
Education		
Less than high school	78	34.4
High school graduate	83	36.6
Some college or higher	66	29.1
Employment status		
Employed full-time	34	15.0
Employed part-time	26	11.5
Unemployed/disabled for work	138	60.8
Other	29	12.8
Health insurance		
None	140	61.7
Public	14	6.2
Private	57	25.1
Other	15	6.6
Household income		
less than $10,000	132	58.1
$10,000–$14,999	33	14.5
$15,000–$19,999	20	8.8
$20,000 or more	32	14.1
Homeless in past 12 mo		
No	121	53.3
Yes	105	46.3
Arrested in past 12 mo		
No	171	75.3
Yes	54	23.8
Self-reported HIV status*		

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	Total	
Characteristics	**No.**	**%**
Negative	108	71.1
Positive	44	28.9
Self-reported hepatitis C status		
Negative	197	86.8
Positive	28	12.3
Diagnosed with syphilis in past 12 mo		
No	208	92.9
Yes	16	7.1
Visited health care provider		
No	44	19.6
Yes	181	80.4
HIV testing in past 12 mo		
No	89	42.0
Yes	123	58.0
Hepatitis C testing in past 12 mo		
No	134	59.6
Yes	91	40.4
Syphilis testing in past 12 mo		
No	119	53.1
Yes	105	46.9
Received free condoms in past 12 mo		
No	46	20.3
Yes	180	79.3
Currently receiving antiretroviral treatment[†]		
No	11	25.0
Yes	33	75.0
Metropolitan Statistical Area		
Chicago	67	29.5
Houston	59	26.0
Los Angeles	101	44.5
Total	227	

May not sum to total due to rounding and missing values.

[*]Among 152 transgender persons tested in the past 2 years and who knew their recent test result.

[†]Of 44 participants who self-reported being infected with HIV.

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TABLE 2

Hormone and Other Transgender Health Care Utilization, Transgender HIV Behavioral Survey, 3 US Cities, 2009

	Total	
Behaviors	**No.**	**%**
Hormone use		
Never	38	16.7
Used but not in the past 12 mo	36	15.9
Used in the past 12 mo	153	67.4
Ever injected hormones		
No	87	38.3
Yes	140	61.7
Injected hormones in past 12 mo		
No	109	48.0
Yes	113	49.8
Hormone therapy covered by health insurance *		
Coverage does not include hormone therapy	26	30.2
Coverage includes hormone therapy	57	66.3
Do not know if coverage includes hormone therapy	3	3.5
Clinical supervision of hormone therapy †		
No	46	30.3
Yes	106	69.7
Type of provider of hormone needles ‡		
Prescription from the doctor	74	65.5
Internet	2	1.8
Someone on the street	21	18.6
A friend	34	30.1
Other	8	7.1
Ever injected silicone or similar substance		
No	169	74.4
Yes	58	25.6
Injected silicone or similar substance in past 12 mo		
No	208	91.6
Yes	14	6.2
Had vaginal construction or sex reassignment surgery		
No	218	96.5
Yes	8	3.5
SRS covered by health insurance *		
Coverage does not include SRS	70	81.4
Coverage includes SRS	4	4.7
Do not know if coverage includes SRS	12	14

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Behaviors	Total	
	No.	%
Out about transgender identity to health care provider[§]		
Not out to health care provider	20	11.8
Out to health care provider	150	88.2
Total	227	

May not sum to total due to rounding and missing values.

[*]Of the 86 transwomen who had health coverage.

[†]Of the 153 participants who used hormones in the 12 months preceding the interview.

[‡]Of the 113 participants who injected hormones in the 12 months preceding the interview; participants may have used more than one source.

[§]Of the 170 transwomen who reported having and seeing a health care provider in the past 12 mo.

SRS, sex reassignment surgery.

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TABLE 3

Sexual Behaviors and Substance Use, Transgender HIV Behavioral Survey, 3 US Cities, 2009

	Total	
Past 12 Mo Sexual Behaviors	**No.**	**%**
Number of male sex partners		
None	29	13.4
1	33	15.2
2–4	51	23.5
5–10	44	20.3
11+	60	27.7
Anal sex with male partners		
No	47	22.2
Yes	165	77.8
Condomless anal sex with male partners		
No	109	51.4
Yes	103	48.6
Exchanged money or drugs for sex with a male casual partner		
No	123	57.7
Yes	90	42.3
Forced to have sex with a male partner in past 12 mo		
No	180	84.5
Yes	33	15.5
Alcohol and Substance Use		
Alcohol consumed in past 30 d		
No	77	34.7
Yes	145	65.3
Binge drinking in past 30 d		
No	143	64.7
Yes	78	35.3
Used noninjection drugs in past 12 mo		
No	140	62.0
Yes	86	38.0
Type of noninjection drugs used in the preceding 12 mo*		
Marijuana	70	81.4
Ecstasy	26	30.2
Crack cocaine	25	29.1
Powdered cocaine	24	27.9
Crystal meth (tina, crank, ice)	21	24.4
Downers (Valium, Ativan, Xanax)	13	15.1
Painkillers (OxyContin, Bicodin, Percocet)	11	12.8
Poppers	10	11.6
Hallucinogens (LSD, mushrooms), heroin, or some other drug	8	9.3

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Past 12 Mo Sexual Behaviors	Total	
	No.	%
Ever injected illicit drugs		
No	188	83.6
Yes	37	16.4
Sex while under the influence of drugs/alcohol with last male partner		
No	128	62.8
Yes	76	37.3
Total	227	

May not sum to total due to rounding and missing values.

*Of the 86 participants who used drugs in the 12 months preceding the interview; participants may have used more than one type of drug.